

What is claimed is:

1. An apparatus for stacking semiconductor wafers, comprising:
a housing configured to releasably maintain a plurality of semiconductor wafers in fixed positions relative to said housing;
a transfer guide proximate to the housing, the transfer guide configured to facilitate the transfer of the plurality of semiconductor wafers into the housing; and
a member configured to detach the semiconductor wafers from the housing so as to collect the semiconductor wafers into a stack.
2. The apparatus of claim 1 wherein the housing further comprises a plurality of supports, each support configured to maintain one of the semiconductor wafers in a fixed position, and to release said one of the semiconductor wafers onto the stack
3. The apparatus of claim 2 wherein said each support is a flexible support configured to deform so as to flexibly release said one of the semiconductor wafers onto the stack.
4. The apparatus of claim 2 wherein said each support is configured to pivotably release said one of the semiconductor wafers onto the stack.
5. The apparatus of claim 1 further comprising a transfer arm for directing the plurality of wafers through the transfer guide and into the housing.
6. The apparatus of claim 1 wherein the member is a basket configured to move within the housing so as to detach the semiconductor wafers from the housing and collect the semiconductor wafers into the stack.
7. The apparatus of claim 6 further comprising a lift attached to the basket, the lift configured to move the basket within the housing so as to detach the semiconductor wafers from the housing and collect the semiconductor wafers into the stack.
8. An apparatus for stacking semiconductor wafers, comprising:

a housing having supports for releasably engaging a plurality of semiconductor wafers; and

a basket configured to receive said plurality of semiconductor wafers, said basket further configured to disengage said wafers from said supports, and to manipulate said wafers into a stack.

9. The apparatus of claim 8 wherein said supports are flexible supports further configured to deform so as to flexibly release said plurality of semiconductor wafers onto said stack.

10. The apparatus of claim 9 further comprising a lift, the lift being attached to said basket and configured to move said basket against said wafers so as to release said wafers from said supports and onto said stack.

11. The apparatus of claim 8 wherein said supports are further configured to pivotably release said plurality of semiconductor wafers onto said stack.

12. The apparatus of claim 11 further comprising a lift, the lift being attached to said basket and configured to move said basket against said wafers so as to release said wafers from said supports and onto said stack.

13. The apparatus of claim 8 further comprising a guide for facilitating the transfer of said wafers into said housing and onto said supports.

14. The apparatus of claim 13 further comprising a receptacle configured to receive a semiconductor wafer cassette, wherein said guide facilitates the transfer of said wafers from said wafer cassette into said housing.

15. The apparatus of claim 14 further comprising a transfer arm for directing said wafers through said guide and into said housing.

16. A method of stacking semiconductor wafers, comprising:

positioning a plurality of semiconductor wafers proximate to a housing, the housing having supports configured to releasably hold the plurality of semiconductor wafers;

transferring the plurality of semiconductor wafers into the housing so that the wafers are releasably held within the housing;

releasing the plurality of semiconductor wafers from the supports so as to collect the plurality of semiconductor wafers into a stack.

17. The method of claim 16 wherein said releasing further comprises flexibly releasing the plurality of semiconductor wafers from flexible supports and onto said stack.

18. The method of claim 16 wherein said releasing further comprises pivotably releasing the plurality of semiconductor wafers from pivotable supports and onto said stack.

19. The method of claim 16 wherein said transferring further comprises pushing said plurality of semiconductor wafers from a wafer cassette positioned proximate to said housing and through a transfer guide configured to direct the plurality of semiconductor wafers onto the supports.